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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,330	02/23/2004	Anthony DiLeo	MCA-633 US	8718
25182	7590	04/08/2005	EXAMINER	
MILLIPORE CORPORATION 290 CONCORD ROAD BILLERICA, MA 01821			BUECHNER, PATRICK M	
			ART UNIT	PAPER NUMBER
			3754	

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

87

Office Action Summary	Application No. 10/784,330	Applicant(s) DILEO, ANTHONY	
	Examiner Patrick M Buechner	Art Unit 3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) 3 and 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. This application contains claims 3 and 7-10 drawn to an invention nonelected with traverse in Paper No. 9/15/04. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keyes et al. (US 5,680,960) in view of Cohen et al. (US 5,135,485) and further in view of Sudolcan et al. (US 6,299,020).

Keyes clearly discloses all of the structure of claims 1, 2, 4 and 6 with the exception of a pair of copper electroconductive terminals proximate the fill tube and control means responsive to the capacitance of the conductors for controlling the filling or release of fluid from the reservoir. Keyes does disclose a pair of optical terminals and a control means responsive to the optical terminals for controlling the filling or release of fluid from the reservoir.

Cohen teaches a fluid level sensing system having a pair of electroconductive terminals placed directly on the container. While Cohen is silent as to the material the electroconductive

Art Unit: 3754

terminals are made from, copper is a well known conductor and malleable material and that one having ordinary skill in the art at the time the invention was made would have found that it would have been obvious to use copper for the electroconductive terminals because of copper's high conductivity and high malleability. This statement is taken to be admitted prior art because applicant failed to traverse the Examiner's assertion of Official Notice in paragraph 4 of the Office Action dated 12/8/2004.

It also would have been obvious for one of ordinary skill in the art at the time the invention was made to use the detection system of Cohen in the apparatus of Keyes as a simple substitution of parts, that is to replace the optical sensors of Keyes with the electroconductive terminals as taught by Cohen, since Sudolcan recognizes that optical sensors can have deficiencies when the material to be dispensed is less opaque, and that electroconductive terminals are more reliable for these types of materials.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keyes in view of Cohen and in view of Sudolcan as applied to claim 1 above, and further in view of Freund (US 4,262,542).

Keyes in view of Cohen and in view of Sudolcan disclose all the limitations of claim 5, as discussed above in 4, with the exception of using pulsed current.

Freund teaches an electroconductive flow meter using pulsed current.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use pulsed current, as taught by Freund, in the apparatus of Keyes as modified by Cohen and Sudolcan. Using pulsed current would allow for nearly constant electrode output for a given set of fluid level conditions.

Response to Arguments

5. Applicant's arguments filed 3/10/05 have been fully considered but they are not persuasive.

6. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Sudolcan (US 6,299,020) clearly recognizes the deficiencies of optical sensors in measuring less opaque fluids (column 6, lines 13-26) and provides an electro-conductive sensing system to overcome such deficiencies (column 5, lines 65-67 and column 6, lines 1-12). This is clearly a recognized advantage; therefore since Cohen et al. (US 5,135,485) discloses a type of electro-conductive sensor using capacitance, there is a suggestion and a motivation to combine the electro-conductive sensor using capacitance of Cohen et al. with the control system and in place of the optical sensors of Keyes et al. (US 5,680,960). While applicant may be correct that such a substitution would require some modification of the control means of Keyes, such a modification would be well within the capabilities of one having ordinary skill in the art at the time the invention was made. Also, applicant suggests that because the electro-conductive sensors of Cohen are used to measure volume in a container they are incapable of being used in the system of Keyes in order to control volumetric dispensing. This is

not found persuasive, as the control system of Keyes clearly measures the volume in the fill tube (36) to provide measured volume dispensing (Keyes, column 5, lines 10-13). It is clear that both the electro-conductive sensors of Cohen and the optical sensors of Keyes both measure volume. Since the optical sensors of Keyes, which measure volume, are capable of being used in a volumetric dispensing system, it follows that the electro-conductive sensors of Cohen, which also measure volume, must be capable of being used in a volumetric dispensing system.

7. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 3754

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick M Buechner whose telephone number is (571) 272-4923.

The examiner can normally be reached on 6:30am-5:00pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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